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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,680

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Sungho Jin

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PATENT DOCKET ADMINISTRATOR
LOWENSTEIN SANDLER PC
65 LIVINGSTON AVENUE
ROSELAND, NJ 07068

EXAMINER

VIJAYAKUMAR, KALLAMBELLA M

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

08/31/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/584,680	Applicant(s) JIN, SUNGHO	
	Examiner KALLAMBELLA VIJAYAKUMAR	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17 and 20-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15, 17 and 20-29 is/are allowed.
- 6) ☒ Claim(s) 30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Applicant's amendment filed 06/15/2010 has been entered. Claims 1 and 22 were amended. Claims 16 and 18-19 cancelled. New claim 30 was added that incorporates the limitations of the claim-11. Claims 1-15, 17 and 20-30 as amended are currently pending with the application.
- Applicant's amendment overcomes the prior art rejections cited in the last office action.
- The indicated allowability of claim-11 is withdrawn in view of the newly discovered reference(s) to Eastman (US 5,925,198). Rejections based on the newly cited reference(s) follow.
- The attempt to condition the application for allowance either by amending or cancelling claim-30 did not materialize.

Claim Rejections - 35 USC § 102

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claim **30** is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over **Eastman et al (US 5,728,195)**.

Eastman et al teach a nanocrystalline multicomponent and multiphase materials comprising predetermined elemental and phase compositions having component grain sizes of approximately between 1 nm to 100 nm. The compositions contained a dispersion of binary compounds such as Al₃Zr in a single element Al. The binary compounds included intermetallics

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such as NiAl, Al₃Ti, and the elements include Ti, Fe, Co, Ni, Cu, Zr, Pd, Pt and Ag (Abstract, Cl-2, Ln 66 – Cl-3, Ln 19, Cl-3, Ln 42-Cl-4, Ln 43; Cl-5, Ln 29-31, 49-62; Cl-8, Ln 12-14). All the limitations are met.

In the alternative that the disclosure by Eastman et al be insufficient to anticipate the instant claims, the instant claimed composition nonetheless would have been obvious to a person of ordinary skilled in the art over the disclosure because the reference teaches compositions containing intermetallics dispersed in elemental metals. The burden is upon the applicant to prove otherwise. In re Fitzgerald, 619 F.2d 67, 205 USPQ594 (CCPA 1980). [MPEP 2112 [R-3-V].

Allowable Subject Matter

- Claims 1-15, 17 and 20-29 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: These claims incorporate the claim limitations that were indicated to be allowable in the last office action. An updated search was carried out that did not result in any new prior art that either teaches or fairly suggest a composition containing the specific components with specific properties and their structural relation, and a method of making the composition. Although such a composition may be inherent in the prior art materials, it could not be established with absolute certainty.

Conclusion

The prior art by Das (US 5,925,198) discloses Ni alloys containing dispersion of Ni₃Al in Nickel superalloy (Fig-3, Cl-5, Ln 38-42, Cl-9, Ln 39-44). Miyake teaches dispersion of intermetallic nanoparticles in a super aluminum alloy (Cl-2, Ln 20-35; Cl-9, Ln 3-54). Both the

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prior arts have not been used in the present rejection as being cumulative to the prior art by Eastman.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KALLAMBELLA VIJAYAKUMAR whose telephone number is (571)272-1324. The examiner can normally be reached on M-F 07-3.30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 5712721358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KMV/

August 27, 2010.

/Stanley Silverman/

Supervisory Patent Examiner, Art Unit 1793